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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,302	11/28/2007	Andrew Chow	Q97187	7517

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EXAMINER	
SQUIRES, BRETT S	

ART UNIT	PAPER NUMBER
2431	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/593,302	CHOW ET AL.	
	Examiner	Art Unit	
	BRETT SQUIRES	2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/18/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 6 recites the limitations "said first interface," and “said second interface,” in page 14 lines 26-31 of the PCT article 34 amendments filed January 17, 2006. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being obvious over Hearn et al. (US 2005/0091522) in view of Jackson (EP 0911738 A2).

Regarding Claims 1 and 6:

Hearn discloses a security device for protecting data (See figs. 1 and 2 ref. no. 35) having an interface (“ATA Cable” and “Bus Control and Interface Logic” See fig. 2 ref. nos. 33 and 43) for connection to a computing device (“CPU" See figs. 1 and 2 ref. no. 13), the security device is located in-line between the interface and the data storage

("Security Device" See figs. 1 and 2 ref. no. 35), a data storage ("Storage Device" See figs. 1 and 2 ref. no. 21), a control system ("Application Program" See paragraph 108), and a memory that includes program data executable on the computing device to perform user authentication ("Flash ROM" See fig. 2 ref. no. 41 and paragraphs 106-108), wherein the control system is configured to expose the memory to the interface to facilitate user authentication and at least until user authentication and to expose the data storage to the interface only upon successful user authentication ("The application program stored in flash ROM 41 for the security device 35 is generally designed to intercept and control the computer system's boot process and provide authentication by means of a login ID and password before access to the protected storage media is permitted." See paragraph 108).

Hearn does not disclose the security device includes an encryptor that is operable to encrypt on the fly data received from the interface and to forward the data once encrypted to the data storage and decrypt on the fly data received from the data storage and to forward the data one decrypted to the interface.

Jackson discloses a hard disk drive having a dedicated encryption device (See fig. 2 ref. no. 4) connected to the read/write means for encrypting data to be written onto the hard disk drive and decrypting data to be read from the hard disk drive (See paragraph 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to the security device disclosed by Heard to include a dedicated encryption device such as that taught by Jackson in order to remove the onus from the user to

ensure that all files that should be protected by means of encryption are so protected (See Jackson paragraph 7).

Regarding Claim 2:

Hearn discloses the control system is configured to reboot the computing device after successful user authentication and before exposing the encryptor to the interface ("The operating system of the security device 37 then signals the authentication application program run by the host CPU 13 at 120 that the security device bus control and interface logic is configured to adopt the data access profile of the user, whereupon the application program at 121 issues the software interrupt vector to the host CPU13 invoking a warm boot. The appropriate soft boot vector is then loaded and the host CPU 13 causes a soft system re-start or warm boot at step 85." See paragraphs 143-145).

Regarding Claim 3:

Hearn discloses the memory has a portion of a memory storage system provided with one or more bootable programs ("The security device provides for a custom boot sector to be loaded into the RAM of the host CPU 13, which then executes an authentication application program requiring correct user authentication before allowing the computer system to proceed with its normal boot sector operation and operating system loading." See paragraph 125).

Regarding Claim 4:

Hearn discloses a security device for protecting data (See figs. 1 and 2 ref. no. 35) having a first interface ("ATA Cable" and "Bus Control and Interface Logic" See fig. 2 ref. nos. 33 and 43) for connection to a computing device ("CPU" See figs. 1 and 2 ref.

no. 13), a second interface ("ATA Cable" and "Bus Control and Interface Logic" See fig. 2 ref. nos. 33 and 43) for connection to a data storage ("Storage Device" See figs. 1 and 2 ref. no. 21), the security device is located in-line between the interface and the data storage ("Security Device" See figs. 1 and 2 ref. no. 35), a control system ("Application Program" See paragraph 108), and a memory that includes program data executable on the computing device to perform user authentication ("Flash ROM" See fig. 2 ref. no. 41 and paragraphs 106-108), wherein the control system is configured to expose the memory to the interface to facilitate user authentication and at least until user authentication and to expose the data storage to the first interface only upon successful user authentication ("The application program stored in flash ROM 41 for the security device 35 is generally designed to intercept and control the computer system's boot process and provide authentication by means of a login ID and password before access to the protected storage media is permitted." See paragraph 108).

Hearn does not disclose the security device includes an encryptor that is operable to encrypt on the fly data received from the first interface and to forward the data once encrypted to the second interface and decrypt on the fly data received from the second interface and to forward the data one decrypted to the first interface.

Jackson discloses a hard disk drive having a dedicated encryption device (See fig. 2 ref. no. 4) connected to the read/write means for encrypting data to be written onto the hard disk drive and decrypting data to be read from the hard disk drive (See paragraph 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to the security device disclosed by Heard to include a dedicated encryption device such as that taught by Jackson in order to remove the onus from the user to ensure that all files that should be protected by means of encryption are so protected (See Jackson paragraph 7).

Regarding Claim 5:

Hearn discloses the control system is configured to reboot the computing device after successful user authentication and before exposing the encryptor to the interface ("The operating system of the security device 37 then signals the authentication application program run by the host CPU 13 at 120 that the security device bus control and interface logic is configured to adopt the data access profile of the user, whereupon the application program at 121 issues the software interrupt vector to the host CPU13 invoking a warm boot. The appropriate soft boot vector is then loaded and the host CPU 13 causes a soft system re-start or warm boot at step 85." See paragraphs 143-145).

Regarding Claim 7:

Hearn discloses the memory includes a bootable program configured to automatically load into the computing device when the device is connected to the computing device and the computing device is powered up ("The security device provides for a custom boot sector to be loaded into the RAM of the host CPU 13, which then executes an authentication application program requiring correct user authentication before allowing the computer system to proceed with its normal boot sector operation and operating system loading." See paragraph 125).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRETT SQUIRES whose telephone number is (571) 272-8021. The examiner can normally be reached on 9:30am - 6:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BS/
/Syed Zia/
Primary Examiner, Art Unit 2431